

Work Order ID 122756

July-22-14 9:41:42 AM

ASAP  
5090-3  
B122756

\*122756\*

~~PRELIMINARY ISSUE~~

Page 1

Item ID: D5090-3

Accept

\*N9000040100\*

Setup Start

\*NS1\*

Revision ID:

Item Name: Bracket

Stop

\*NS2\*

Start Date: 7/22/14

Start Qty: 20.00

\*20\*

Cust Item ID:

Required Date: 7/25/14

Req'd Qty: 20.00

\*20\*

Customer:

Reference:

Approvals:

Process Plan: N

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start

\*NR1\*

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D5090

PB3

Rev. B per ZCN14-592

100

0.00

\*100\*

FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg

Dwg Rev: PB3

Prog Rev: PB3

2-Deburr as required

POSITIVE RECALL

EFFECTIVE

RELEASED

11/21/14

AUTH

DATE

20

0

DAS

23

9-89

14-0724

110

QC2- Inspect parts off machine FAI/FAIB

0.00

\*110\*

QC

Memo

0.00

Quality Control

20

0

DAS

23

9-89

14-0724

# Work Order ID 122756

**\*122756\***

Page 2

Item ID: D5090-3

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Item Name: Bracket

Stop

**\*NS2\***

Start Date: 7/22/14 Start Qty: 20.00

**\*20\***

Cust Item ID:

Required Date: 7/25/14 Req'd Qty: 20.00

**\*20\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120

QC8- Inspect parts - second check

0.00

**\*120\***

QC

Memo

0.00

Quality Control

130

Bend as per dwg

0.00

**\*130\***

Brake NC

Memo

0.00

Brake NC

140

QC5- Inspect part completeness to step on W/O

0.00

**\*140\***

QC

Memo

0.00

Quality Control

DAS  
30  
9-89

14/07/25

~~Inspect on pen~~

20

20

# Work Order ID 122756

**\*122756\***

Page 3

Item ID: D5090-3

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Bracket

Start Date: 7/22/14 Start Qty: 20.00

**\*20\***

Cust Item ID:

Required Date: 7/25/14 Req'd Qty: 20.00

**\*20\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

150 Chemical Conversion Coat per QSI005 4.1

0.00

**\*150\***

HandFinish

Memo

0.00

Hand Finishing

20 7/14/28

160 QC7-Inspect Chemical Conversion Coat

0.00

**\*160\***

QC

Memo

0.00

Quality Control

20x 14/07/28

DAS  
36  
9-89

170 QC5- Inspect part completeness to step on W/O

0.00

**\*170\***

QC

Memo

0.00

Quality Control

*[Handwritten signature]*

# Work Order ID 122756

**\*122756\***

Page 4

July-22-14 9:41:42 AM

Item ID: D5090-3 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Bracket  
 Start Date: 7/22/14 Start Qty: 20.00 **\*20\*** Cust Item ID:  
 Required Date: 7/25/14 Req'd Qty: 20.00 **\*20\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	Identify as per dwg & Stock Location: <u>5T132</u>	0.00							
<b>*190*</b>									
Packaging	Memo	0.00				20x	DAS 28 9-89	JUL 29 2014	
Packaging									
200	QC21- Final Inspection - Work Order Release	0.00							
<b>*200*</b>									
QC	Memo	0.00							
Quality Control									

*14-7-29*  
 POSITIVE RECALL  
 EFFECTIVE 14.07.22 AUTH h  
 RELEASED h DATE 14.07.24  
*Rev. B per SCN 14.592*

# Picklist Print

July-22-14 9:41:41 AM

Page 1

Work Order ID: 122756

**\*122756\***

Parent Item: D5090-3

**\*D5090-3\***

Parent Item Name: Bracket

Start Date: 7/22/14

Required Date: 7/25/14

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP REV:A 14.06.18 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.040 <b>*M6061T6S 040*</b> 6061-T6 .040 Sheet		Purchased	No				sf	63.0900		<u>15</u>			
									**			DAS 23 9-89	14-07-24

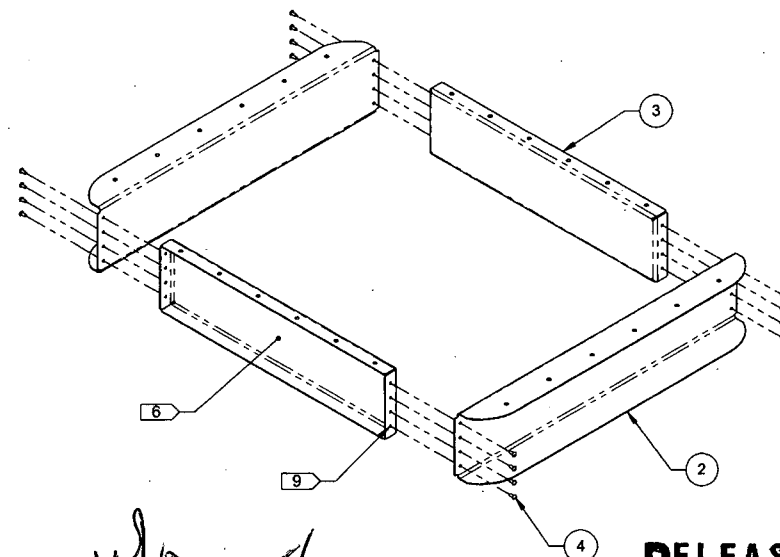
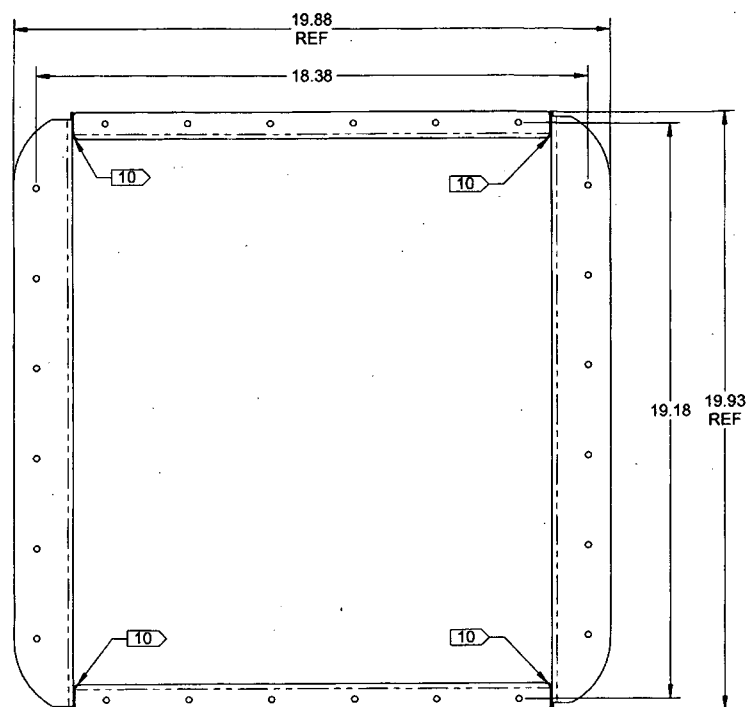
Location	Loc Qty	Loc Code
MAT021	63.09	
m128422	49.79	
m129584	13.3	

129881

129881



ITEM	QTY	P/N	DESCRIPTION
1	X	D5090-041	DUCT ASSEMBLY
2	2	D5090-1	BRACKET
3	2	D5090-3	BRACKET
4	16	MS20470AD4-5	RIVET, SOLID, PAN HEAD



# **D5090-041 DUCT ASSEMBLY**

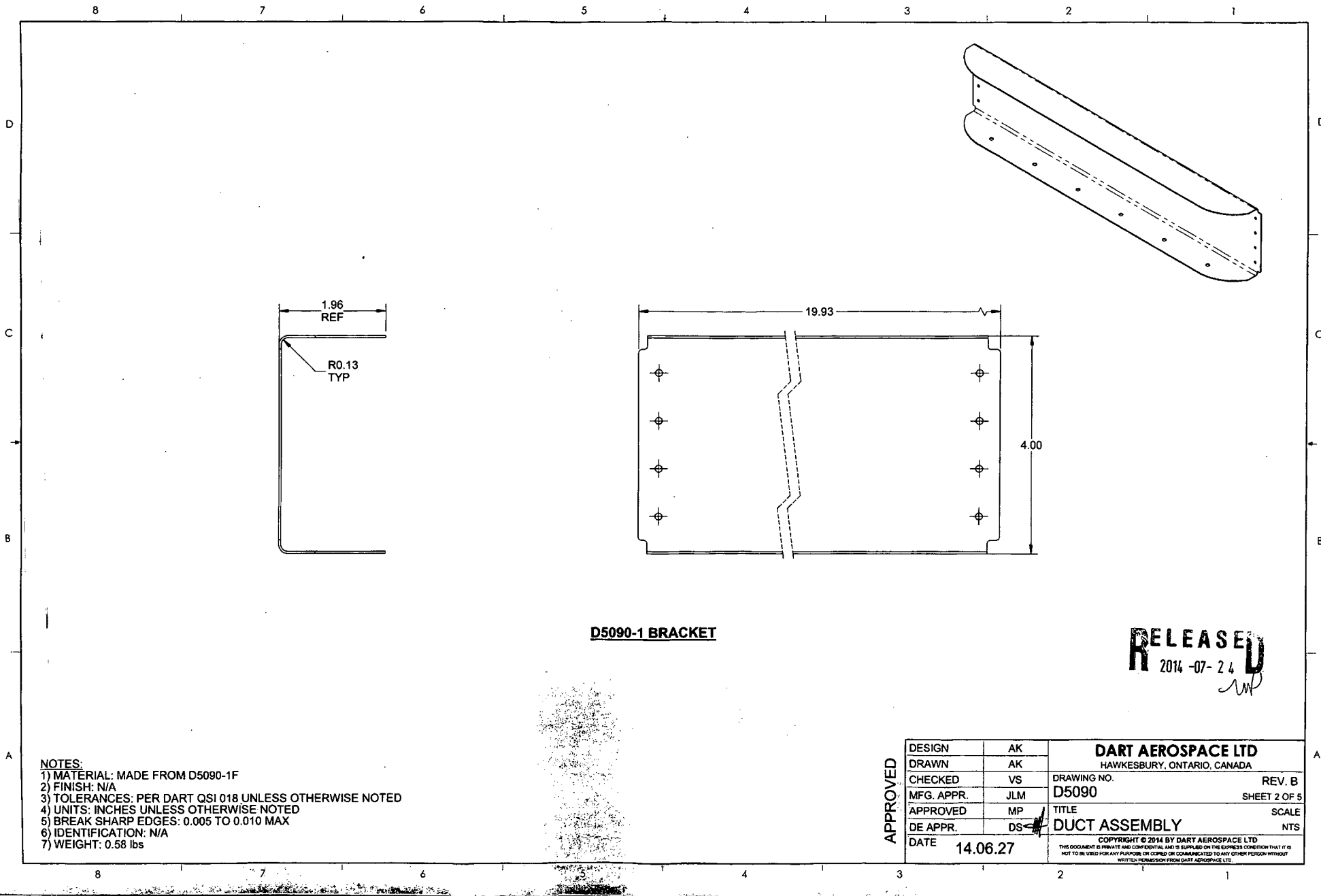
## **NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 AFTER TRANSFER DRILLING
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 1.90 lbs
- 8) ASSEMBLE D5090-041 WITH CLECO CLAMPS AND VERIFY DIMENSIONS
- 9) INSTALL MS20470AD4-5 RIVETS
- 10) FILL UPPER AND LOWER GAPS WITH SIKAFLEX, PROSEAL 890 OR EQUIVALENT

B	REVISED D5090-3 TO ADD HOLES (ZN C6-4, ZN B5-5)	AK	14.06.27
A	NEW ISSUE	AK	14.04.01
REV.	DESCRIPTION	BY	DATE
DESIGN	AK	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AK		
CHECKED	VS	DRAWING NO.	REV. B
MFG. APPR.	JLM	D5090	SHEET 1 OF 5
APPROVED	MP	TITLE	SCALE
DE APPR.	DS	DUCT ASSEMBLY	NTS
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**RELEASED**  
2014-07-24

APPROVED



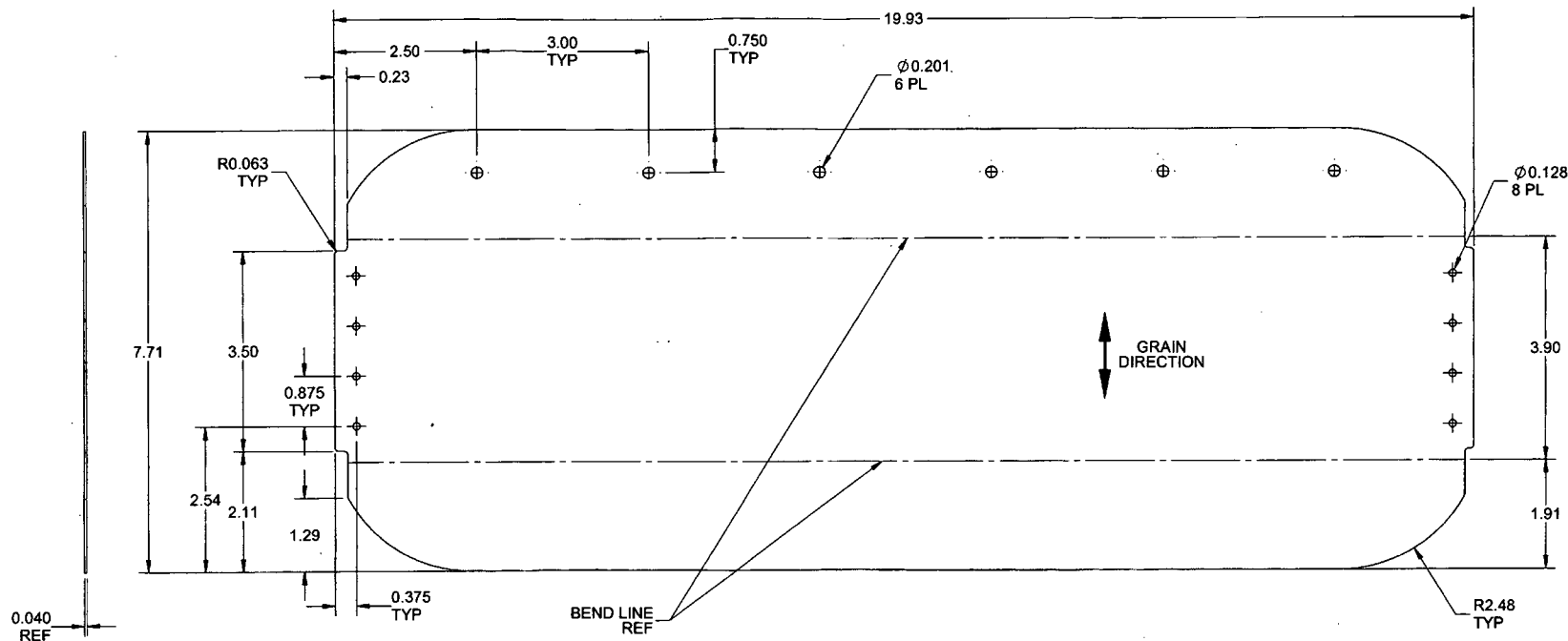
**D5090-1 BRACKET**

**RELEASED**  
2014-07-24

- NOTES:**
- 1) MATERIAL: MADE FROM D5090-1F
  - 2) FINISH: N/A
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.58 lbs

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**D5090-1F FLAT PATTERN**

**RELEASED**  
2014-07-24

**NOTES:**

- 1) MATERIAL: 6061-T6/T62 ALUMINUM SHEET, 0.040 THICK  
PER QQ-A-250/11 OR AMS-QQ-A-250/11  
OR AMS 4025 OR AMS 4027  
OR ASTM B209  
REF DART SPEC M6061T6S.040
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.58 lbs

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CHECKED	VS	DRAWING NO.	REV. B
MFG. APPR.	JLM	<b>D5090</b>	SHEET 3 OF 5
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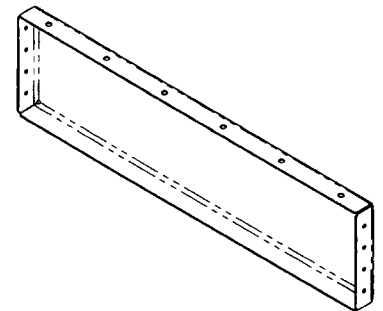
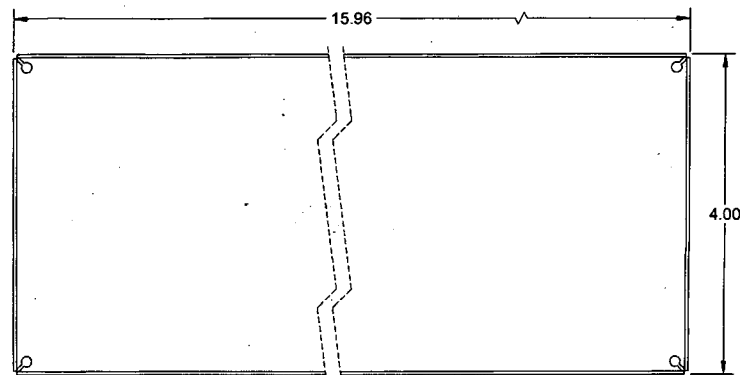
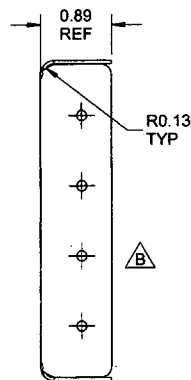
1

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B

A



# **D5090-3 BRACKET**

## **NOTES:**

- 1) MATERIAL: MADE FROM D5090-3F
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.37 lbs

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DESIGN	AK	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AK		
CHECKED	VS	DRAWING NO. <b>D5090</b>	REV. B
MFG. APPR.	JLM		SHEET 4 OF 5
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**RELEASED**  
2014-07-24  
*MD*

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1

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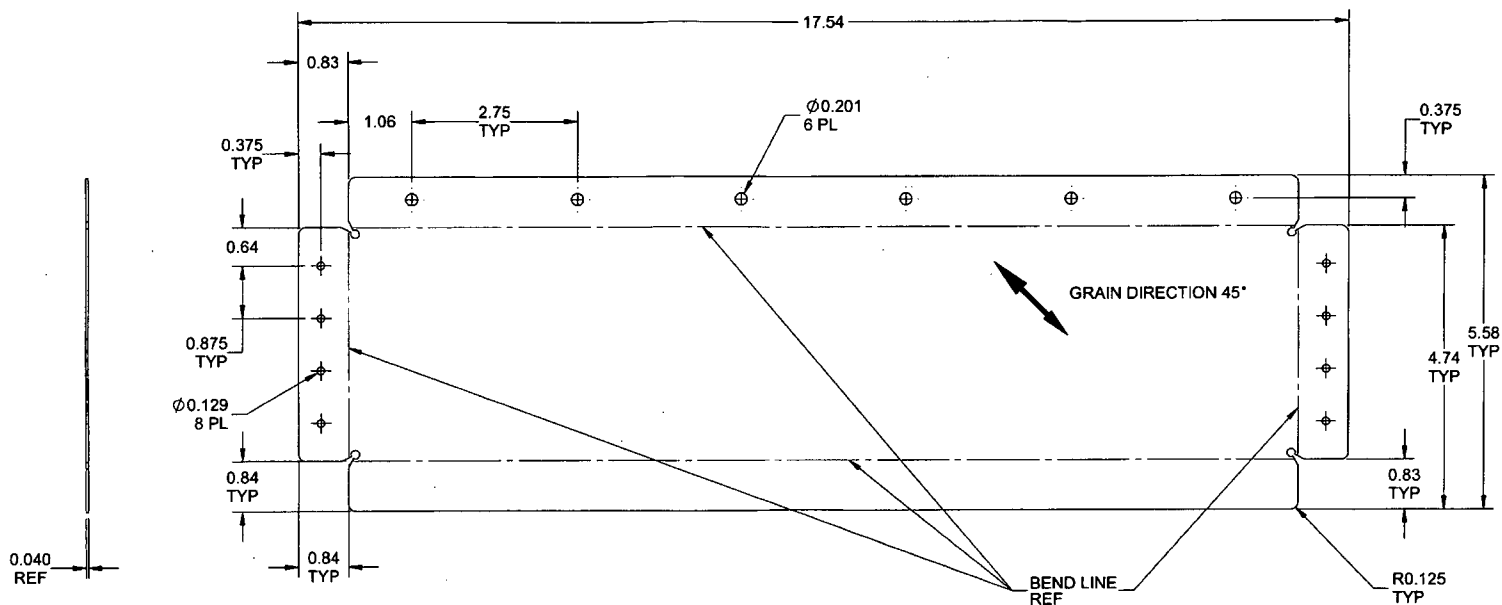
1

D

C

B

A



**B D5090-3F FLAT PATTERN**

# NOTES:

- 1) MATERIAL: 6061-T6/T62 ALUMINUM SHEET, 0.040 THICK  
PER QQ-A-250/11 OR AMS-QQ-A-250/11  
OR AMS 4025 OR AMS 4027  
OR ASTM B209  
REF DART SPEC M6061T6S.040
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.37 lbs
- 8) UNDEFINED FEATURES ARE CONTROLLED BY D5090-3F.DXF

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DESIGN	AK	<b>DART AEROSPACE LTD</b>	
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CHECKED	VS	DRAWING NO.	REV. B
MFG. APPR.	JLM	<b>D5090</b>	SHEET 5 OF 5
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2014-07-24